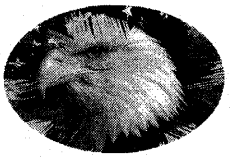

PCB REMEDIATION PLAN

ESTABROOK ELEMENTARY SCHOOL

117 GROVE STREET

LEXINGTON, MA

Prepared by

Charles Hughes

American Environmental, Inc.
18 Canal Street
Holyoke, MA 01040

December, 2013

TABLE OF CONTENTS

1.0 SUMMARY

This work plan is submitted for the removal of PCB bulk product and remediation waste identified in carpeting, brick, sealants, ceiling tiles, caulking, cove base, cove base mastic, interior paints, wood wall paneling, wood overhang, block, concrete and CMU walls throughout various locations within the Estabrook Elementary School located at 117 Grove Street in Lexington, MA. In addition, this work plan also includes the removal of PCB "Excluded Products" such as replacement acoustical ceiling tiles, fiberglass insulation, Tectum ceiling panels, floor tile mastic and vapor barriers. American Environmental, Inc. will do the hazardous materials abatement work on-site for the identified PCB materials and impacted porous materials which have been identified in the EH&E Plan for the Removal of Building Related PCB's. The purpose of this plan is to describe methods to be used during remediation to protect the surrounding students, parents and the Staff of the Estabrook School, which is in close proximity of this project.

2.0 REGULATIONS, PERMITS, AND QUALIFICATIONS

American Environmental, Inc. shall obtain all permits necessary to execute work conducted at the Estabrook Elementary School. American Environmental, Inc. shall adhere to all applicable federal, state, and local rules and regulations including, but not limited to, those from the EPA, the Massachusetts Department of Environmental Protection, the U.S. Occupational Safety and Health Administration (OSHA), and the Town of Lexington, MA.

American Environmental understands that project approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Site as identified in the Notification.

American Environmental will comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes that may be generated at the Site during remediation or abatement activities. In the event of a new spill or release of PCBs during abatement or remedial activities, the American Environmental shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

American Environmental, Inc. shall conform to all stipulations and permits identified in the contract bid documents, including any conditions set forth in the EPA approval. Where a conflict arises between regulations, American Environmental, Inc. shall adhere to the most stringent regulation. American Environmental, Inc. shall also confer with Costello/Shawmut Design & Construction, EH&E and ECMS to resolve any conflict between the remediation plan, contract documents and the remediation procedures.

2.1 FIRE SAFETY AND EMERGENCY ACTION PLANS

American Environmental, Inc. has prepared an emergency action and fire prevention plans that are fully compliant with all applicable regulations previously submitted to Costello/Shawmut Design and Construction. These plans include:

- Emergency escape procedures and routes.
- The procedure for announcing emergencies.
- The procedures to account for all employees after evacuation.
- The rescue and medical duties of personnel.
- A list of all major workplace fire hazards.
- The names and/or job titles of people responsible for the maintenance of the fire prevention equipment.
- The names and/or job titles of people to be contacted for information about the job.

2.2 STANDARD OPERATING PROCEDURES

American Environmental, Inc. has prepared a written work plan and health and safety plan for the work to be performed at the Estabrook Elementary School. The plan does ensure maximum protection of workers and visitors from exposure and prevents the release of PCBs or PCB-laden dust into the environment. A Health & Safety Plan was provided with our original submittal and a copy is maintained on the site at all times. Included in this plan is also a Pre-Task Plan outlining work, hazards and controls. The procedures include, but are not limited to the following:

- Engineering controls and work practices to minimize airborne contamination into the work area and to prevent the spread of such contamination outside the work area. These controls and practices instituted during abatement activities must keep workers' exposures to PCBs below the permissible exposure limit and ensure no release of PCBs from the work area.
- Specifications regarding containment processes to prevent the release of abatement debris from the work area.
- Specifications for sufficient and proper protective clothing and respiratory protection equipment for entrance into the exclusion zone, as may be required by OSHA regulations.
- Specifications for safe work practices in the workplace and exclusion of eating, drinking, smoking, or in any way breaking the respiratory protection, if respirators are required.
- Removal methods that minimize the amount of airborne dust generated from abatement activities.
- Specifications regarding end of work shift cleaning procedures.
- Specifications regarding the handling, storage, transport, and disposal of all appropriately classified PCB waste in a manner that minimizes exposure and that complies with federal, state, and local regulations regarding PCBs.

- Specifications identifying disposal sites for PCB waste.
- Specifications regarding possible contingency plans pertaining to accidental spills and/or contamination in the work area or outside the work area.
- Mandatory and proper use of decontamination facilities when exiting the work area.
- Directions regarding the cleaning of work areas following abatement procedures.
- Supervision of work by a competent person.

In addition, the specific procedures outlined in the Section 3.3 shall be followed.

2.3 TRAINING AND CERTIFICATION

All personnel working with the exclusion zone at the Estabrook Elementary School will have all the required training, medical examinations, and respirator fit testing as specified by OSHA. American Environmental, Inc. will have a competent manager/supervisor at the job site at all times overseeing the work. Site-specific hazards and hazards associated with the handling and disposal of PCB products will be effectively communicated to the staff to minimize potential exposures. In addition, American Environmental, Inc. will provide proper training and equipment for all safety-related issues.

3.0 SCOPE AND SCHEDULE

3.1 SCOPE

The scope of work for the project addresses the following PCB remediation waste, PCB bulk product waste and "excluded product" containing PCBs. Some of the materials identified below also contain asbestos and will need to be removed during abatement activities and managed as a mixed waste material containing both PCBs and ACM.

PCB Remediation Waste

- Carpeting, in limited locations throughout, approximately 10,000 sf

PCB Bulk Product Waste >50ppm

- Brick, previously adjacent to exterior PCB frame caulk, exterior faces, approximately 600 lf
- Window glaze sealant, metal window frames and glass windows, 6,000 lf
- Ceiling tiles, throughout interior or school, approximately 75,000 sf
- Interior and exterior panel sealant, exterior windows, approximately 6,000 lf
- Interior expansion joint caulk, adjacent to sell expansion joint, approximately 120 lf
- Cove base and cove base mastic, on base of walls, approximately 7,200 lf
- Interior frame caulk, metal window and door frames, approximately 600 lf
- Exterior frame caulk, metal window and door frames, window soffit, etc, approx. 2,500 lf
- Interior paint, concrete CMU and metal railings, approximately 900 lf and 12 doors

PCB Bulk Product Waste <50ppm

- Interior painted block and Concrete/CMU wall materials beyond 4" delineation boundary, throughout interior of school, approximately 50,000 sf
- Wood wall paneling beyond 4" delineation boundary, adjacent to cove base, approx. 200 lf
- Exterior wood overhang, perimeter of building, exterior window frame, approx. 3,600 lf

PCB Excluded Product

- Replacement acoustical ceiling tiles, approximately 3,000 sf
- Fiberglass insulation, approximately 75,000 sf
- Tectum acoustical ceiling panels, approximately 75,000 sf
- Floor tile mastic, approximately 65,000 sf
- Interstitial vapor barrier, approximately 7,500 sf

All PCB waste (regardless of concentration) generated as a result of any activity that disturbs PCB-contaminated materials at the Site, including but not limited to abatement, or remedial activities, shall be marked in accordance with § 761.40; stored in a manner prescribed in§ 761.65; and, disposed of in accordance with 40 CFR § 761.61 or§ 761.62, however there are various materials which will be disposed of a mixed PCB and ACM waste. American Environmental is still in the process of selecting the appropriate landfill to dispose of the PCB waste, however American Environmental will have the waste profiles and the generators selected prior to the start of the project and will include any submissions necessary well in advance of the project starting.

3.2 WORK SEQUENCE

The work sequence consists of the following general elements and will proceed prior to demolition of the building. American Environmental will work from the ceiling level down to the floor to prevent cross-contamination. Asbestos Abatement procedures will be performed prior to and/or in conjunction with the PCB remediation project. Materials that are a mixed waste (Asbestos and PCB) will be removed first in order to isolate the work areas within the asbestos containment in order to obtain a final visual inspections and an asbestos final air clearance. American Environmental's typical work sequence is as follows:

- Site demarcation and protection.
- Delineate extent of removal of adjacent porous surfaces.
- Applying of Fosters 32-32 Bridging encapsulant, on painted materials on brick, CMU and/or concrete before controlled demolition and removal to minimize the release of PCB's to the environment.
- Removal and segregation of contaminated materials with concentrations of PCBs >50 ppm versus materials <50ppm.

- Set-up dust control measures for hand chipping work (i.e. HEPA vacuums) and mechanical means (water). American Environmental will use a combination of various machines to remove the materials from the building, including but not limited to, shot blasting with vacuum, walk behind skid steers, skid steers and lull.
- Stockpile materials with concentrations >50 ppm PCBs and <50ppm will be removed from the interior and exterior of the building by the shortest possible route. Materials containing a mixed waste, asbestos and PCB, will double bagged and loaded into 100cy locked van trailers. Materials containing just PCBs will be segregated and placed into their appropriate container for final waste disposal.
- Waste Disposal
- Final visual inspection of work

American Environmental, Inc. will supply all labor, materials, and equipment necessary to carry out the scope of work detailed in this document in a professional, workman-like manner. Due to building construction and the locations of the PCB-containing materials >50ppm and <50 ppm American Environmental, Inc. will sequentially remove the materials and segregation of the waste. This will involve close coordination and planning as we proceed through the building phases and segregate the waste streams.

3.3 SPECIFIC WORK PLAN PROCEDURES

Prior to beginning the task of PCB removal, American Environmental, Inc. will create appropriate exclusion and decontamination zones in accordance with OSHA guidelines. The area will be caution taped off and proper signage will be installed to keep other workers/visitors out of the work areas. The use of 6-mil poly sheeting & pop-up decontamination units to create exclusion zones will be used as needed to perform the work. Critical barriers will be left on the windows to provide an additional barrier to the outside, until the windows and perimeter façade

is removed. As an exterior precaution, American Environmental will install reinforced poly sheeting on the exterior of the overhang to eliminate the potential for non-authorized personal to enter the work area or visually see the work being performed.

Carpeting

The removal of the carpeting will be performed by the use of mechanical means and carpet pullers. Workers will remove the carpeting while adequately wetting the material during the removal process. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. At completion of removal, American Environmental will clean the work area to the extent of no visible debris. All PCB Remediation carpet waste will be packaged in DOT authorized containers, labeled, segregated, and stored on-site in an appropriate area. The carpeting will be placed in lined dumpsters (s), covered until removed from the site for disposal. The carpeting will be disposed of in accordance with 40 CFR § 761.61(a). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Caulking, Sealants and Porous Building Materials

The removal of the caulking, sealants and porous building materials will be performed by the use of masonry saws, caulking cutters, chipping hammers and skid steers. The caulking materials also contain asbestos and will be handled as a mixed waste. Workers will be performing remediation work while adequately wetting the material during the removal process. Prior to start of work, workers will identify the porous building materials adjacent to the caulking and sealants a minimum of 4" beyond the caulk or sealant. This shall allow for workers to know where the demarcation of the waste stream exists and cut on the clean side of the porous surface. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage

decontamination facility for the workers to remove protective clothing. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. At completion of removal, American Environmental will clean the work area to the extent of no visible debris. All ACM/PCB caulking will be removed from the porous building materials and double bagged and disposed of as a mixed waste. In addition, American will dispose of the windows containing the caulking and sealant as a mixed ACM/PCB waste. The windows will be wrapped in double poly sheeting and labeled for proper disposal. The mixed ACM/PCB waste will be stored in 100cy enclosed van trailers and stored on-site in an appropriate area until ready for final disposal. The porous building materials will be segregated and be packaged in DOT authorized lined dumpsters, covered, labeled, and stored on-site in an appropriate area until removed from the site for disposal. All PCB Bulk Product waste (caulking, sealants, windows, porous building materials), will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Ceiling Tiles

The removal of the ceiling tiles (original and replacement) will be performed by the use of skid steers with appropriate attachments and by workers, as necessary. Workers will be performing the remediation work while adequately wetting the material during the removal process. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. At completion of removal, American Environmental will clean the work area to the extent of no visible debris. All ceiling tile (original and replacement) will be removed and disposed of as a PCB Bulk product waste. All PCB bulk product ceiling tile waste will be packaged in DOT authorized containers, labeled, segregated, and stored on-site in an appropriate area. The ceiling tiles will be placed in lined dumpsters (s), covered until removed from the site for disposal. The ceiling

tiles will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Cove Base, Associated Mastic and Porous Building Materials

The removal of the cove base, associated cove base mastic and porous building materials will be performed by the use of chipping hammers and hand-held shrouded grinders with HEPA vacuums. Workers will be performing remediation work while adequately wetting the material during the removal process. Prior to start of work, workers will identify the porous building materials adjacent to the cove base and mastic at a minimum of 4" beyond the caulk or sealant. This shall allow for workers to know where the demarcation of the waste stream exists and cut on the clean side of the porous surface. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. At completion of removal, American Environmental will clean the work area to the extent of no visible debris. All cove base, cove base mastic and porous building materials will be removed and disposed of as a PCB Bulk Product waste. All PCB bulk product cove base and cove base mastic waste will be packaged in DOT authorized drums, labeled, segregated, and stored on-site in an appropriate area. The drums will be placed in approved locked containers until removed from the site for disposal. The porous building materials will be segregated and be packaged in DOT authorized lined dumpsters, covered, labeled, and stored on-site in an appropriate area until removed from the site for disposal. All PCB Bulk Product waste (cove base, cove base mastic and porous building materials), will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Expansion Joint Caulking and Porous Building Materials

The removal of the expansion joint caulking and porous building materials will be performed by the use of masonry saws, caulking cutters, chipping hammers and skid steers. Workers will be performing remediation work while adequately wetting the material during the removal process. Prior to start of work, workers will identify the porous building materials adjacent to the caulking a minimum of 4" beyond the caulking. This shall allow for workers to know where the demarcation of the waste stream exists and cut on the clean side of the porous surface. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. At completion of removal, American Environmental will clean the work area to the extent of no visible debris. All PCB caulking and the porous building materials will be segregated and be packaged in DOT authorized lined dumpsters, covered, labeled, and stored on-site in an appropriate area until removed from the site for disposal. All PCB Bulk Product waste (caulking, sealants, windows, porous building materials), will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Interior Paint

The removal of the interior paint >50ppm and <50ppm will be performed by the use of large machinery and skid steers. Workers will initially install Fosters 32-32 Bridging encapsulants on the painted materials, prior to the controlled demolition. American Environmental will be performing the remediation work while adequately wetting the material during the removal process. Costello and American will jointly remove the materials during the remediation and demolition process. Interior paint that is on CMU Block will be removed in sections and segregated >50ppm and <50ppm. CMU Block walls <50ppm will be stockpiled on a clean concrete slab and live loaded into lined dump trailers. At the exclusion zone entrance(s),

American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing, as necessary. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. All painted CMU block walls will be removed and disposed of as a PCB Bulk Product waste either as >50ppm or <50ppm. All PCB bulk product waste will be packaged in DOT authorized containers and live loaded into lined dump trailers. All PCB Bulk Product waste will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

Interior Wood Paneling and Exterior Wood Overhang

The removal of the interior wood wall paneling and the exterior wood overhang on the perimeter of the building will be performed by the use of skid steers and hand work. Workers will be performing the remediation work while adequately wetting the material during the removal process. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing, as necessary. All wood paneling and wood overhang will be removed and disposed of as a PCB Bulk Product <50ppm. All PCB bulk product waste will be segregated and be packaged in DOT authorized lined dumpsters, covered, labeled, and stored on-site in an appropriate area until removed from the site for disposal. All PCB Bulk Product waste will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

"Excluded Products"

The removal of the remaining PCB materials are "Excluded Products" and will be removed and properly disposed of in a facility that accepts PCB's <50ppm. The materials to be removed as an "Excluded Product" include fiberglass insulation, Tectum ceiling panels, floor tile mastic and the vapor barrier. The fiberglass insulation will be removed as part of the ceiling removal and the floor tile mastic will be removed by the shot blast method with a HEPA vacuum attachment on the machine. The Tectum ceiling panels and the vapor barrier, will be removed during demolition. Workers will be performing the remediation work while adequately wetting the material during the removal process. At the exclusion zone entrance(s), American Environmental, Inc. will provide a two stage decontamination facility for the workers to remove protective clothing, as necessary. All protective clothing will be disposed of as PCB remediation waste when workers leave the work area. All "Excluded Products" will be removed and disposed of as a PCB "excluded product" <50ppm. The waste will be segregated during removal and demolition and packaged in DOT authorized lined dumpsters, covered, labeled, and stored on-site in an appropriate area until removed from the site for disposal. All PCB "excluded product" waste will be disposed of in accordance with 40 CFR § 761.62(2) or (3). All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

All PCB waste (regardless of concentration) generated as a result any activity that disturbs PCB-contaminated materials at the Site, including but not limited to abatement, or remedial activities, shall be marked in accordance with § 761.40; stored in a manner prescribed in§ 761.65; and, disposed of in accordance with 40 CFR § 761.61 or§ 761.62. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g) while the PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or will be disposed of under §761.60.

3.4 SCHEDULE

The PCB removal work is anticipated to take place during daytime hours beginning once the plan is approved and the students/faculty have relocated to the new school. The asbestos abatement activities are scheduled to begin immediately and is anticipated on starting on February 27, 2014. Once the asbestos abatement has been completed and final air clearances have been achieved, PCB remediation will begin. American Environmental anticipates the PCB Remediation begin approximately 2 weeks into the project and continue to the duration of the remediation and demolition project which is estimated around June, 2014.

4.0 UTILITIES

4.1 WATER SYSTEMS

All water shall be by means of a hose bib connection within the building and/or a fire hydrant located on the property.

4.2 ELECTRICAL SYSTEMS

All electrical to the building will be available for use by American Environmental, Inc. during the initial 2 phases of the project. Once demolition begins on the 1st Phase, power will be supported by Generators or potentially power from a nearby source. The entire building will be isolated and shut down during the abatement process, however American Environmental will run temporary cords and quick disconnects from the main power coming into the building.

4.3 EXISTING FACILITIES

No existing facilities within the building shall remain except for the main power to run American Environmental's temporary power. American Environmental will be using the existing Porta John's located throughout the property for sanitary facilities.

5.0 SITE PREPARATIONS

5.1 SITE PROTECTION

In order to contain debris and to protect the environment during remediation of the PCB containing products and adjacent contaminated surfaces, American Environmental, Inc. will use isolated work areas, localized water and HEPA Vacuums to limit dust issues. American Environmental will install two layers of poly sheeting on the ground and attach to the existing building with duct tape to be used as sufficient ground cover. The poly sheeting will extend out from the building approximately 10'. In addition, American Environmental will install a visual barrier around the exterior of the building to isolate and control any dust that may occur during the process. In some instances, American Environmental may install HEPA filtered negative air machines during the removal and abatement process, however the HEPA units will be used during the asbestos abatement process.

5.2 SITE ISOLATION

During the removal work, American Environmental, Inc. will address security and access concerns as part of the project. American Environmental, Inc. will employ dust control measures (such as adequate water & HEPA vacuums) for all work. The Work Plan specifics in 3.3 address demarcation of work areas.

5.3 WASTE CONTAINERS

American Environmental, Inc. shall obtain and locate the approved PCB waste containers on-site. American Environmental, Inc. will coordinate the location of the PCB waste containers with Costello/Shawmut Design and Construction. The PCB waste containers shall be clearly marked as such to avoid confusion with ordinary waste containers that may be located around the site.

6.0 MATERIAL STORAGE AND HANDLING PROCEDURES

6.1 PCB BULK PRODUCT AND REMEDIATION WASTE MATERIAL

PCB bulk product waste and remediation waste containing >50 ppm PCB's (e.g., various caulking, sealants, paint, ceiling tile, floor tile, brick and other associated porous materials) shall be handled in a manner to avoid the breakdown of these materials into fine dust or powders. These materials shall be removed whole, without breakage if possible. Bridging encapsulant (Fosters 32-32) will be applied to painted materials concrete before controlled demolition and removal to minimize the release of PCB's during demolition. Any dried and brittle PCB bulk product or remediation wastes require additional care, such as the use of a HEP-filtered vacuum operating while removing the material, to prevent the inadvertent release of PCB dust or powder into the environment.

Once removed; the materials shall be placed in lined container(s) or into an appropriate container(s) for transport into the PCB container at the end of the work shift. Materials will be place directly into the lined container, drum or approved boxes designated for transport and will not be stockpiled. Any PCB waste and PCB-containing items shall be stored for disposal in accordance with 40 CFR 761.40 and 40 CFR 761.65. Containers shall be clearly marked as PCB-containing waste materials.

Closed top dumpsters containing PCB materials with concentrations greater than or equal to 50 ppm will be marked with designations indicating that the PCB materials are contained in the dumpsters, as stated in 40 CFR 761.65(c)(1). All dumpsters and PCB-contaminated materials will be non-liquid materials. All areas containing greater than or equal to 50 ppm PCB waste must be within the dumpsters and secured at the end of the day.

6.2 PCB EXCLUDED PRODUCT

Excluded PCB product waste materials that contain <50ppm PCBs is not considered bulk product or remediation waste. The materials are not regulated under 40 CFR 761, however the materials will be disposed of in a landfill that is permitted to accept waste materials containing <50ppm PCBs and is not considered a bulk product waste. Additional testing of the materials will be necessary prior to disposal and as required by the selected landfill.

7.0 DISPOSAL

Disposal of all waste shall be in accordance with applicable state and federal regulations and sent to a licensed facility that will receive and retain PCB bulk product waste in accordance with EPA regulations under 40 CFR 761.61 and 40 CFR 761.62. All PCB waste removed from the site will be kept separate from other ordinary construction waste streams that will be generated on the site. Copies of all bills of lading, waste shipment records, certificates of disposal, and any other documentation will be provided to Costello/Shawmut Design and Construction as proof of proper disposal of waste.

PCB bulk product and PCB remediation wastes will be stored according to applicable EPA TSCA regulations. American Environmental, Inc. shall ensure compliance with storage and marking requirements described in 40 CFR 761.40 and 40 CFR 761.65. American Environmental shall

also ensure that no visible emissions of dust will occur during the disposal of PCB bulk product and PCB remediation wastes into appropriate disposal containers.

The PCB bulk product and PCB remediation waste will be disposed of in accordance with 40 CFR 761.61 and 40 CFR 761.61(b), respectively, at the approved landfill for such disposal. American Environmental shall submit the appropriate landfill documentation to verify that it is capable of accepting PCB waste in accordance with these requirements, once a waste profile is generated by the landfill.

If PCB waste requires TCLP analysis prior to disposal, as required by the disposal facility, sampling and analysis will generally be conducted in compliance with Subpart R of the TSCA regulations, or at equivalent frequencies.

8.0 DECONTAMINATION AND REMOVAL PROCEDURES

American Environmental, Inc. will obtain proper permits and conduct work in compliance with all applicable regulations, including the TSCA, the RCRA, and any other applicable federal, state, and local laws. Demolition procedures for the work shall consist of the hand demolition, mechanical means and machinery of the specified PCB-containing materials.

8.1 PCB CAULKING REMOVAL

The PCB-containing caulking is also ACM and therefore removal and disposal must comply with all applicable regulations for mixed waste. Caulking will be removed using the following procedures:

- Set up exclusion zones.

- Use lifts to access materials above ground level, as necessary
- Hand scrape or chisel to remove caulk from the surrounding material surface to achieve no visible caulk on the adjacent surfaces.
- Moisten porous building materials with water using a low-pressure hand held sprayer and maintain moisture content to reduce dust levels, however not excessive to cause liquid waste. Clean up dust and any residue with HEPA-filtered vacuums.
- Install 6-mil polyethylene sheeting on the ground, as ground cover, to catch debris from work and prevent contamination.
- Segregate waste as defined by the remediation plan and as discussed in Section 3 of this plan.
- Decontamination of equipment and tools as required by regulation before leaving area.
- Provide proper storage of segregated waste streams prior to proper disposal offsite (as discussed in Section 3 of this document).

8.2 EXTERIOR BRICK ENCAPSULATION AND REMOVAL

American Environmental will encapsulate and remove PCB paint and caulk on the interior and exterior of the building. The application of the encapsulants will be a temporary measure to minimize exposure during the select demolition and management of the demolition debris. The protective coating or the bridging encapsulants selected for this project is Fosters 32-32 encapsulant. The encapsulants will be applied to the PCB-painted walls within the building and as identified within the work plan. The encapsulants will be applied to the brick, CMU and/or concrete prior to the controlled demolition. If necessary, American Environmental will add a color into the paint to differentiate waste streams. The encapsulants will be applied according to the manufacture's recommendations and adequate time will be provided for curing prior to demolition.

8.3 CONTAMINATED METAL, CONCRETE & BRICK REMOVAL AND DISPOSAL

Surfaces adjacent to the caulking will have a vertical cut a minimum of 4" on either side. Removal extent shall be pre-marked to show limits. Workers will chip brick and concrete to the limits and debris shall mostly fall on the slab or poly covered ground on the floor where work is occurring. Material will be properly covered until can be loaded into appropriate lined containers for disposal.

8.4 DECONTAMINATION OF NON-POROUS SURFACES & WORKERS

American Environmental, Inc. employees performing the PCB remediation work will use the two stage decontamination facility located at the entrance to the regulated work area to remove contaminated PPE and to wash any exposed skin areas prior to leaving the regulated areas. All packaged PCB waste and non-porous equipment in the work area will be decontaminated to the level of no visible dust or debris in the two stage waste load out facility prior to leaving the work area.

All moveable equipment, tools and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2) by swabbing the potentially contaminated surfaces with a PCB soluble solvent and wipes prior to leaving the work area. The wipes shall be disposed of PCB Remediation Waste. In accordance with the project specifications, rags and a water/detergent mixture will be used to perform routine decontamination during work inside the regulated area.

Following the demolition work and the decontamination and load out of all packaged waste from the work area, the work area itself will be decontaminated to the level of no visible debris, as determined by visual inspection from the American Environmental, Inc. and Owner's consultant.

9.0 HEALTH AND SAFETY

9.1 AMERICAN ENVIRONMENTAL, INC HEALTH AND SAFETY PLAN

The written health and safety plan that details engineering controls, practices and procedures, protective equipment, and training that will be used to control and minimize exposures has been previously submitted. This plan outlines PPE protection requirements for dealing with hazardous materials.

9.2 OSHA REGULATIONS

All applicable federal and state OSHA standards and regulations to ensure worker safety will be in effect during the remediation and abatement process. The following programs are addressed in the contractor's health and safety plan. This is not a comprehensive list of the required programs, and the contractor is responsible for determining which programs apply and how best to implement the required programs.

- Fall Protection
- Personal Protective Equipment
- Lockout/Tagout
- Confined Spaces
- Machine Safety
- Ladder/Scaffolding Safety
- Electrical Safety
- Housekeeping (Slips, Trips, Falls)
- Injury Reporting
- First Aid
- HAZWOPER/HAZMAT

9.3 PUBLIC SAFETY

American Environmental, Inc. will ensure public safety during the abatement work as identified within this plan. American Environmental, Inc. has implemented containment measures designed to protect workers, occupants, and the environment from the release of PCB-containing materials.

Access to work areas will need to be limited to ensure that only workers properly trained will be within the Site. Proper hygiene and decontamination procedures must be followed to limit the potential for transferring PCB waste outside the work area.

American Environmental, Inc. will conduct visual assessments to verify the effectiveness of the controls. If observations indicate that additional containment or engineering controls are required, American Environmental, Inc. will be responsible for making the necessary adjustments to engineering controls and work practices to minimize fugitive emissions, as determined by Costello/Shawmut Design and Construction and Owner's Representative.

In addition, if there is evidence of PCB bulk product waste or remediation waste outside of the immediate work area (as determined by visual inspection), American Environmental, Inc. will clean up the debris in accordance with the procedures and to the standards specified in specification and PCB remediation plan, and shall modify controls and procedures to prevent a reoccurrence, at no cost to Owner.

10.0 FINAL APPROVAL AND ACCEPTANCE

Final approval of the remedial work will be given when the following conditions are met:

- The work has been completed in a professionally competent manner, as demonstrated by successful visual inspections described in PCB Remediation Work Plan.
- The Site has been successfully closed out.
- The Owner will receive a completed and accurate waste manifest for every PCB waste container removed from the site's waste storage location.
- The work will not be considered complete until Costello/Shawmut Design and Construction & Owner's Representative provides final approval.